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The Reflected Best Self Field Experiment with Adolescent Leaders:
Exploring the Psychological Resources Associated with Feedback Source and Valence

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Abstract

This study provides a preliminary examination of the efficacy of the Reflected Best Self Exercise. We conducted a field quasi-experiment with 108 adolescent leaders assigned to a 2x2 design: (1) valence of feedback (i.e., strengths-only versus strengths and improvement-oriented) and (2) source of feedback (i.e., professional (e.g., teachers, coaches, bosses, etc.) only versus professional and personal (e.g., friends and family)). Using ANOVA, support was found for the hypothesis that feedback from the combination of professional and personal sources is associated with more positive emotional, agentic and relational resources than feedback from only professional sources. Little support was found for the hypothesis that strengths-based feedback generates more positive emotional, agentic, or relational resources. Limitations, implications for practice and directions for future research are discussed.

Keywords: reflected best self, feedback, strengths, positive, self-development, LIWC

The Reflected Best Self Field Experiment with Adolescent Leaders:
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Recently, positive psychologists and organization scholars have described the benefits of affirming and holistic developmental experiences (e.g., Green, Oades, & Grant, 2006; Roberts, Spreitzer, Dutton, Quinn, Heaphy, & Barker, 2005; Seligman, Steen, Park, & Peterson, 2005). This study examines the efficacy of one developmental experience, called the Reflected Best Self Exercise (RBSE) (Roberts, Dutton, Spreitzer, Heaphy & Quinn, 2005). The RBSE helps individuals become aware of personal strengths and thus come closer to realizing their best possible selves (Markus & Nurius, 1986; Oyserman, Bybee & Terry, 2006). In this study, we seek to demonstrate the relationships between the feedback conditions underlying the RBSE and three key resources (positive emotions, agency, and relationships) that may be generative for self-development (Erickson, 1995).

The RBSE was developed in the realm of positive organizational scholarship, which focuses on positive deviance (e.g. excellence and virtuousness) in organizations (Cameron, Dutton, & Quinn, 2003). In the exercise, participants obtain short behavioral descriptions of times when they have been at their very best. This feedback is “reflected” from an array of significant people (not only from professional colleagues as is typical, but also from friends and family). Participants then look for patterns in the feedback to identify themes and then create a reflected best-self portrait. A reflected best-self portrait pulls together the core themes from their feedback and integrates them into a coherent narrative. Finally, participants each create an action plan, which outlines future goals, based on what they learned about their strengths.

The kind of narrative strengths-based feedback provided through the RBSE is rarely given, especially in institutional contexts (Spreitzer, 2006). Leaders, teachers, or coaches will

often say “good job” to a task well done but rarely go into a more thorough description of what stands out as a strength (Ellis & Davidi, 2005) that is unique to the person. Receiving strengths-based narrative feedback is often deeply moving for participants, generating deep feelings of gratitude (Emmons & McCullough, 2004) and stimulating a positive “jolt” to self-development (Luthans & Avolio, 2003).

The purpose of our research is to provide a preliminary empirical examination of the impact of this kind of narrative, strength-based feedback in a sample of adolescent leaders. We develop specific hypotheses about the effects of two design elements of the RBSE that differentiate it from traditional feedback approaches: (1) broadened sources of feedback and (2) solely strengths-based feedback. The RBSE has been used in professional education and a range of organizations; while reports of such experiences have generally been positive, the exercise has not been subject to empirical testing. As such the research makes a contribution in several ways: (1) it provides an empirical test of the benefits of affirming and holistic developmental experiences, (2) it articulates the mechanisms for why the RBSE, and strengths-based feedback more generally, matters for self-development, (3) it uses a quasi-experimental design to demonstrate the efficacy of the RBSE in young leaders.

Conceptual Development

Feedback can be used to regulate behavior as well as enhance performance (Ashford, 1986; Ilgen, Fisher & Taylor, 1979). The study of feedback and its effects has focused a great deal on work or task-performance contexts (e.g. Ashford, Blatt & VandeWalle, 2003; Kluger & DeNisi, 1996; Smither, London & Reilly, 2005). Much of this literature has focused on evaluative appraisals of how well a person did or did not meet some standard on a specified task (e.g. Atwater & Brett, 2005; Bailey & Austin, 2006; Kluger & DeNisi, 1996). Considerably less

research has focused on strengths-based feedback. The RBSE provides such a focus on strengths-based feedback from a broad array of people from different domains of life.

A Resource-based View of the RBSE

Prior theorizing has suggested that the RBSE facilitates self-development in terms of self-improvement, feelings of energy, and the pursuit of goals that are aligned with self-characteristics (Roberts, Dutton et al. 2005). This theorizing also suggests that self-development comes about through the engagement of psychological resources. Following from this account, we suggest that the resources fostered by the RBSE are likely to be generative for self-development. We define “resources” as the emotional, agentic, and relational assets used to engage in particular courses of action. These assets can be produced within the individual or derived from their environment (Hobfoll, 1989; Spreitzer, Sutcliffe, Dutton, Sonenshein, & Grant, 2005). Resources facilitate well-being and can take a variety of forms, including conditions or states of being and personal characteristics (Hobfoll, 1989). These resources can build and expand capabilities which, in turn, enhance the likelihood of positive outcomes such as resilience or flourishing (Dutton & Glynn, 2007). Positive emotions, agency and relationships are “generative” because they can unlock latent potential from within individuals through creating, developing, transforming, multiplying or otherwise expanding capabilities, skills, and capacities (Dutton & Glynn, 2007). We now examine three specific resources – positive emotions, agentic and relational – and make the case in the sections that follow for how they promote self-development.

First, *positive emotional resources* refer to the psychological affective states which may include emotions such as joy, interest, hope, and gratitude (Hobfoll, 1989). These emotional states facilitate openness to new ideas and new courses of action that are adaptive in times of

change (Fredrickson, 2001). The concomitant broadening of thought and action repertoires is an asset because it can be used to develop other resources and enhance well-being. Specifically, positive emotions aid self-development because they develop resilience and optimism in the face of difficulty and enable a sense of identity and a goal orientation (Fredrickson, 2006).

Second, *agentic resources* refer to beliefs about whether one has the capability to exercise control over events that affect one's life (Bandura, 1982). This resource is important for the utilization of other resources, and sustaining positive action (Bandura, 1997). Agency aids the process of self-development because it is an important determinant of human motivation and action – whether and how people take action to grow and develop (Bandura, 1982; Bass, 1990).

Third, *relational resources* refer to the qualities of interpersonal relationships that provide the foundation for connections with others (Baumeister & Leary, 1995). Being in relationships with others is a condition that functions as a resource. Relationships provide social support and intimacy, which lessen stress, facilitate coping and foster feelings of being loved and valued (Hobfoll, Hall, Canetti-Nisim, Galea, Johnson, & Palmieri, 2007; Stroebe & Stroebe, 1996). The validation and support that relationships provide can, in turn, foster self-development. As these relational resources embody conditions of trust and psychological safety (Edmondson, 1999), people may feel more comfortable in taking risks and embracing self-development (Dutton & Glynn, 2007).

In the next section, we describe the two key design elements of the RBSE (i.e., broadened feedback source and positive feedback valence). We make the theoretical case for how each can generate the resources of positive emotions, agency, and relationships, and thus set up the hypotheses for our empirical study (see Figure 1).

Insert Figure 1 about here

Broadened Feedback Source: The Effect of Personal and Professional Feedback

When the source of feedback is broadened beyond professional colleagues to include family members and friends, we posit that there is more potential to generate positive emotional, relational and agentic resources. First, including family members and friends means that feedback is received from a wider range of life domains than just professional settings. Second, despite varying degrees of closeness and intimacy across close “personal” relationships, we assume that in general people have closer and more intimate relationships with friends and family than they do with those with whom they share (institutionally-based) “professional” relationships. Close relationships are highly-valued and provide chronically accessible socio-cognitive representations that are important for understanding the self (Andersen & Chen, 2002; Andersen, Glassman, & Gold, 1998; Hinkley & Andersen, 1996; Shah, 2003). Family and friends have not only known individuals longer, but also have seen them in “weak” settings in which they are not bound by the normative and structural constraints of “strong” institutional contexts (Mischel, 1977). These sources should thus be uniquely positioned relative to “professional” sources to see a person’s authentic self (Swann, 1990). Next, we explore how a broadened feedback source may contribute to the generation of each of the three resources.

Broadened feedback source and positive emotions. First, we hypothesize that receiving feedback from a broadened domain of professional and personal relationship sources will be associated with more positive emotions than receiving feedback from only professional sources. The evaluative feedback usually provided in institutional contexts (whether work or school) might induce negative emotions as individuals are made aware of how they have not met some

standard (Carver & Scheier, 1981; 1999; Duval & Wicklund, 1972; Kluger & DeNisi, 1996). Also, the hierarchical nature of relationships in such a context can set up dependencies that induce impression management (Leary & Kowalski, 1990) which has been associated with negative emotional and behavioral outcomes (Hochschild, 1983; Grandey, 2000; Lee, 1997; 2002). In contrast, it has been demonstrated that feedback (regardless of its valence) is more strongly associated with satisfaction in the context of close, personal relationships (Kumashiro & Sedikides, 2005; Reis, 2007; Swann, De La Ronde, & Hixon, 1994). We therefore expect that broadening the traditional scope of feedback sources to include more intimate family and friends to be positively associated with positive emotions.

Broadened feedback source and agentic resources. Second, we posit that a broader set of feedback sources will be associated with more agentic resources. Feedback from personal sources may be more trusted, and thus more readily accepted and acted upon (Earley, 1986), because such relationships are centered on care and concern. Furthermore, receiving feedback from personal and professional sources enables individuals to find common threads across disparate life domains and develop confidence that the reported self-characteristics are valid and not unique to any one observer or situation, making them more likely to apply and use their strengths. Past RBSE participants have described how they pay particular attention to, and act upon, patterns across feedback givers from different life domains, such as when a childhood friend and a professional acquaintance report similar qualities of the person at his/her best (Roberts, Spreitzer et al., 2005). Observing common patterns across descriptions of the self by various others may then increase the propensity to put those strengths to use.

Broadened feedback source and relational resources. Third, the high value placed on feedback from significant others also suggests that a broadened feedback source will be

associated with more relational resources, such as love (i.e. valuing close relationships, in which one shares aid, comfort, acceptance, and commitment) and kindness (i.e. doing favors, good deeds, and taking care of others regardless of relationship) (Peterson, Park & Seligman, 2006; Peterson & Seligman, 2004). People in close relationships know more about each other than they do about acquaintances (Andersen & Cole, 1990). Feedback from personal sources can thus be richer, more-detailed and better representative of the individual's unique nuances than feedback from less personal sources. By being more reflective of the self and stemming from concern and care for the recipient, feedback from a broader array of sources can better demonstrate love and the esteem in which the individual is held (Sherman & Cohen, 2002). Anecdotally, RBSE participants report feeling more touched by the stories shared by personal than by professional sources (Roberts, Spreitzer et al., 2005). Following from these reports, we suggest that feelings of validation, support and love are more likely when feedback is provided by personal sources in addition to professional sources.

Thus, we hypothesize that:

1a: Those receiving feedback from professional and personal sources will experience more positive emotions than those receiving feedback from only professional sources.

1b: Those receiving feedback from professional and personal sources will experience more agentic resources than those receiving feedback from only professional sources.

1c: Those receiving feedback from professional and personal sources will experience more relational resources than those receiving feedback from only professional sources.

Feedback Valence: The Effect of Articulating Strengths

Strengths-based feedback focuses on information that indicates one's unique talents and capabilities (Buckingham & Clifton, 2001). Normally, people receive feedback on both strengths

and opportunities for improvement. Here we are interested in the efficacy of receiving feedback on strengths **alone** in comparison to feedback on strengths **and** opportunities for improvement. The exclusive focus on strengths may seem counterintuitive because, from an evolutionary perspective, people tend to pay more attention to and recall negative events than positive events (Baumeister, Bratslavsky, Finenauer & Vohs, 2001). Negative feedback is also seen as more diagnostic (Ashford & Tsui, 1991). In contrast though, Hodges and Clifton (2004) cite evidence suggesting that a focus on strengths produces the greatest return on investment because it enables engagement, hope, confidence, and well-being. Similarly, Fredrickson and Losada (2005) found that having a higher proportion of positive emotional experiences to negative experiences (2.9:1) was associated with positive outcomes such as flourishing. This positive growth may be due in part to the broadening of thought-action repertoires and the development of connections and social resources that are fostered by the positive emotions that we suggest are activated by the RBSE (Fredrickson, 2001).

Unfortunately, there is limited empirical research on the effects of strengths-based feedback. Research on one type of feedback that can be similarly framed as “positive” – praise – has not produced conclusive results. Praise has been defined as “to commend the worth of, or to express approval or admiration” (Wilkinson, 1980). Strengths-based feedback could be experienced as praise. Praise can lead to increased work performance, particularly when one trusts the praise-giver and the feedback is considered important (Earley, 1986), credible (Brophy, 1981), and sincere (Meyer, 1992). However, while praise for specific performance can lead to increased effort, it can also reduce performance more broadly as people “choke” under the pressure of higher performance expectations (Baumeister, Hutton & Cairns, 1990). Strengths-based feedback in the RBSE, however, references a diverse set of performance episodes and self-

characteristics the individual has previously displayed. This kind of feedback should not involve pressure to perform since it references performances across life domains, providing a sense of inherent, global competency about the self. Next, we explore how strengths-based feedback may contribute to the generation of each of the three resources.

Strengths-based feedback and positive emotions. First, we hypothesize that strengths-based feedback will be associated with more positive emotions than feedback that focuses on improvement. Recognizing that one has achieved excellence or been expressive of one's ideal self contributes to well-being (Waterman, 1993). It has been demonstrated that visualizing one's "best possible (future) self" can boost positive affect (Sheldon & Lyubomirsky, 2006). We anticipate that being aware that one has displayed excellence and competence in concrete ways, in contrast to a "possible" self, should be associated with greater positive emotions relative to feedback that also involves an evaluative focus on improvement.

Strengths-based feedback and agentic resources. Second, we further posit that a heightened awareness of one's best self can enhance feelings of empowerment (Spreitzer, 1995), which enables individuals to take initiative, embrace challenges, and become more of their best self. Prior research has demonstrated that when individuals receive improvement-oriented feedback, self-esteem is decreased and individuals set lower goals for themselves (Duval & Silvia, 2002), while those who receive feedback that indicates goal-attainment tend to elevate their goals (Ilies & Judge, 2005; Kluger & DeNisi, 1996). Furthermore, when individuals focus on themselves in terms of attaining some standard, as is the case with improvement-oriented feedback, they are found to evaluate the standard negatively and do not attempt to improve future performance (Dana, Lalwani, & Duval, 1997). In general, being made aware of one's

competency in a global sense has been found to increase intrinsic motivation and self-efficacy to act (Ryan & Deci, 2000; Waterman, Schwartz, & Conti, 2008).

Strengths-based feedback and relational resources. For our third resource, while it may be intuitive to hypothesize that strengths-based feedback would be associated with increased relational resources, we suggest that this may not necessarily be the case. On the one hand, feedback recipients can be deeply appreciative of being informed about their strengths, as such feedback fills ego-enhancement needs, helping to maintain a positive self-view (Ashford, Blatt & VandeWalle, 2003). However, evaluative feedback is also valued because it indicates to individuals where there is opportunity for growth, rather than where growth has already been demonstrated. Furthermore, if recipients of “positive” feedback have negative self-views (Bernichon, Cook, & Brown, 2003), if feedback providers are perceived to have inaccurate views of the recipient (Swann, et al., 1994), or if the relationship between provider and recipient lacks authenticity and mutuality (Roberts, Dutton et al., 2005) then it is possible that strengths-based feedback may be discounted and not be engaged in resource development. It is beyond the scope of the present study to take all these factors into account, so it remains inconclusive whether strengths-based feedback will be positively associated with relational resources. As such, we offer no hypothesis.

Thus, we hypothesize that:

Hypothesis 2a: Those receiving only strengths-based feedback (versus strengths and improvement-based feedback) will experience a greater level of positive emotions than those receiving feedback on strengths and areas in need of improvement.

2b: Those receiving only strengths-based feedback (versus strengths and improvement-based feedback) will experience a greater level of agentic resources than those receiving feedback on strengths and areas in need of improvement.

Method

Participants

Our sample consisted of 111 high school sophomores (students in their second year of high school) who took part in the annual three-day Michigan Youth Leadership (MYLead) conference. MYLead is a non-profit organization dedicated to inspiring confidence and empowering leadership in Michigan youth. The conference was held in Ann Arbor, Michigan and coordinated by the third author. As high schools can nominate only one or two attendees, the sophomores were relative strangers at the beginning of the study. Nominated to attend based on their outstanding leadership potential, students on average were involved in 8.5 hours of sports-related activities per week, 7 hours per week of non-sports extra-curricular/service activities, and had a G.P.A. of 3.8/4.0. Roughly one-third (33.6%) held part-time jobs, with the average number of work hours being 7.14 per week. The sample was 68% female. Students were 14-15 years old, with 66% being 15 years of age. 83% came from public high schools (average size of high school, 1224). In terms of socioeconomic status, the high schools were relatively middle class. The average household income in the high school's zip code was \$54,043. Only 1% of the high schools were designated as Title 1 schools in term of free lunches provided to needy students.

This sample represents a particular life-development stage that should be noted. Eriksonian theory suggests that adolescence is typified by a crisis between identity and role confusion – adolescents struggle to define themselves in order to become part of the adult world

(Erikson, 1968). Most adolescents achieve a sense of identity by experimenting with various selves (Nurmi, Poole, & Kalakoski, 1996) which includes testing out careers, as well as religious and political beliefs (King, Elder & Whitbeck, 1997). While there are several possible identity statuses (Marcia, 1980; 1991), the MYLead participants' displays of excellence and involvement in service activities, suggested that they were approaching "achievement" in at least some domains of their lives, having explored and selected from alternative identities. Further, given that adolescents of this age are at a point in cognitive development where they are generally capable of abstract thinking (Weinstock, Neuman, & Glassner, 2006), such as is necessary for surmising themes from the feedback provided by this exercise, we believe this is a capable age group with which to examine the RBSE. Given the degree of high motivation, goal attainment, and expressions of "best self" already experienced by this sample, we anticipated that any change in their already-positive store of psychological resources would be a more conservative test of the RBSE's effects.

Design and Procedure

We designed a field quasi-experiment where participants were randomly assigned to conditions, each of which was a variation of the RBSE. Our study used a 2x2 research design, where we manipulated feedback valence (strengths-only vs. strengths and improvement) and feedback source (professional only vs. professional and personal). A control group (that is, a condition with no feedback) was not included in the design given the nature of the MYLead program. We anticipated that exclusion from the exercise would have induced negative emotions in conference participants in the control group, which would be in opposition to the goals of both the research project and the MYLead conference.

A month before the conference, parental consent forms, participant assent forms, and instructions were mailed to participants, requesting them to solicit feedback via email or mail from 10-20 people in their lives:

- *Condition 1:* participants requested two stories about “my greatest strengths” from “friends, family members, teachers, coaches, teammates, coworkers, youth group leaders, or anyone who has had extended contact with you recently or in the past.”
- *Condition 2:* participants requested two stories about “my greatest strengths” from “individuals you have a ‘professional’ relationship with, and not family members or close personal friends -- these may be teachers, teammates, coaches, fellow members of a student group, coworkers, people you baby-sit for, bosses at work, youth group leaders, etc.”
- *Condition 3:* participants requested two stories each about “my greatest strengths” and “how I could improve or grow” from “friends, family members, teachers, coaches, teammates, coworkers, youth group leaders, or anyone who has had extended contact with you recently or in the past.”
- *Condition 4:* participants requested two stories each about “my greatest strengths” and “how I could improve or grow” from individuals “you have a ‘professional’ relationship with, and not family members or close personal friends -- these may be teachers, teammates, coaches, fellow members of a student group, coworkers, people you baby-sit for, bosses at work, youth group leaders, etc.”

Participants were given a template to use for soliciting feedback, which also included examples of feedback. This template also specified that feedback be forwarded to the research team, rather than directly to the participants. Doing this ensured control over when feedback would be received and processed. Feedback providers responded to the research team by email, mail, or fax. Participants mailed completed baseline survey responses to the research team (what we refer to as time 0 or T0). On the first day of the conference, the second author distributed packets of feedback to the appropriate participants. Later that day, all participants were instructed by the first author to create a best self portrait from the feedback they had received. Participants were given time to read and absorb their feedback, look for common themes, and then create a best-self portrait to be turned in the next day. All participants received equal

treatment, regardless of study condition. Below are two samples of the portraits produced by participants.

Portrait 1:

“I feel that I am at my best when I am self confident and working to help people. I aspire to do good and work my hardest in groups of people and in return I also inspire other people to work hard and do their best. When I am helping other people I feel so good about myself and a sense of pride in the people I am helping [sic]. Having self confidence also helps me a lot, to not let others bring me down, to set my goals and know that someday I will achieve them no matter how hard it is or what it takes.”

Portrait 2:

“Common traits I saw in all or most of my responses are; dedication, organization, comical relief, and persuasion. I can mostly see where the responses got their examples from and some helped me a lot. I am at my best in situations that come naturally. When I am not prepared, and am just acting as myself, I seem to make an impression on people a lot more, than on one where I am scared or nervous.”

Participants were then asked to complete the same survey of emotions/empowerment that they took prior to attending MYLead, providing post-intervention (what we refer to see time 1 or T1). Two days after receiving their feedback, participants completed an action plan regarding a specific goal that would engage the information in their feedback. First the students met in their ‘home groups’ to share the essence of their best self portrait – these home groups were conference-assigned teams in which the students worked during the conference provided a safe setting to share and receive feedback from other participants and a facilitator (adult volunteers or

alumni of the program from prior years). The first author then provided an overview of action planning to all participants in a lecture format. Participants then had time to work independently to craft their action plan (see Figure 2 for the form used for this purpose). The participants then shared their action plans with two peers to gain insights from others to revise and improve their action plans. At the end of the program, the research team retained copies of these action plans.

 Insert Figure 2 about here

We found no differences across the conditions on student gender or type of high school the student attended. As an additional check, we also examined the feedback received by participants. It became clear that the source and valence of feedback as requested by the participants was not always consistent with the feedback they received. Most commonly, participants assigned to the professional-only category received feedback from both personal and professional sources. Additionally, those who requested both strengths and improvement-oriented feedback sometimes received only strengths feedback. Consequently, we re-assigned these individuals to the condition that matched their actual received feedback. Three cases were also dropped because either no strengths were provided or no professional sources provided feedback. The summary of reassignments is shown in Table 1.

 Insert Table 1 about here

Measures

Positive emotions. We measured positive emotions in two ways. First, we surveyed respondents on their self-reported positive emotions (Frederickson, Tugade, Waugh, & Larkin, 2003) a month prior to the MYLead conference (T0). We re-administered the survey 24 hours after the respondents received their feedback (T1). The survey contained eight sets of positive emotions experienced “right now” including “I feel content, serene, peaceful” and “I feel glad, happy, joyful”, using 7-point Likert-type scales that ranged from 1 = *not at all* to 7 = *extremely*. The positive emotions scale was deemed a reliable measure (Cronbach’s $\alpha = .86$ at time 0; $\alpha = .88$ at time 1).

Second, we content analyzed action plans for affective or emotional words using the Linguistic Inquiry and Word Count (LIWC) computer program developed by Pennebaker (2002). LIWC analyzes individual text files and computes the percentages of words that fall into linguistic categories. We follow prior research that has analyzed writings for emotional expression (Danner, Snowdon, & Friesen, 2001; Kahn, Tobin, Massey, & Anderson, 2007); attributional style (e.g. Peterson, Seligman, & Vaillant, 1988); positive health (Campbell & Pennebaker, 2003); and social relationships (Pennebaker, 2007; Pennebaker & King, 1999). We thus leverage the rich content of the texts generated by participants to uncover the expression of positive emotions.

LIWC coding of positive emotions was used to substantiate the self-report of the survey, since it provides an unobtrusive method for capturing emotional expression that is not as susceptible to self-report biases. We focused on the LIWC’s linguistic category of positive emotion which involved a count of words like “admire,” “glad,” and “happy” among others. While the survey measure was collected about 24 hours after the feedback was received, the

action plans were written on the following day. Thus, the action plan coding allows us to assess the durability of the positive emotion across the intervention.

Agentic resources. We measured agentic resources in two ways. First, we included a single item of empowerment to indicate the extent to which the respondents felt empowered (Spreitzer, 1995). Second, we analyzed the action plans for evidence of agency. The action plans capture the nature of change the individual planned to engage in. This agency can be conceptualized in terms of the character strengths of courage, which involves the “exercise of will to accomplish goals in the face of opposition, either external or internal” (Peterson & Seligman, 2004: 199). Specifically, the VIA classification of character strengths includes within the courage classification the qualities of bravery, persistence, and integrity (Peterson & Seligman, 2004). Courage was measured by leveraging LIWC analysis to measure courage-oriented words such as “action,” “conviction,” and “speak up” (for prior usage of LIWC to measure courage, see Pury, Kowalski, & Spearman, 2007).

Relational resources. Relational resources were measured by the usage of words in the portraits that would be associated with the character strengths of (1) love/attachment (measured with words including love, affection, devotion, and friend among others) and (2) kindness/generosity (measured with words including kind, nice, generous, sympathetic, and warm, among others; Seligman, Steen, Park, & Peterson, 2005). We use LIWC to analyze the portraits for love and kindness because it is a validated methodology for assessing self-description of personal characteristics (Chung & Pennebaker, 2007; Lee, Kim, Seo, Chung, 2007). We use the RBS portraits to measure relational resources because the portraits capture participants’ perceptions of self-characteristics such as their feelings about relationships with others (Sedikides & Gregg, 2007).

Results

Means and standard deviations for study variables are shown in Table 2.

 Insert Table 2 about here

Hypotheses 1a-1c: Feedback source condition

Hypothesis 1 posits that those who receive feedback from personal and professional sources will experience more positive emotional, agentic, and relational resources than those receiving feedback from just professional sources.

Positive emotions. To examine the effects of feedback source on positive emotions using the survey data, we conducted longitudinal analyses using repeated-measures ANOVAs to compare the change in emotions from the baseline before the intervention to after the intervention (within-subjects), and across conditions (between-subjects). There were no significant main effects of time or condition, but there was a significant interaction between the change in positive emotions over time and condition, $F(1, 96) = 6.87, p < .01$. While this was a small difference (Partial $\eta^2 = .067$), this does confirm that while positive emotions were consistent across groups at time 0, the professional-only feedback group expressed lower positive emotions ($M = 5.41$) than did the personal and professional feedback group at time 1 ($M = 5.92$).

We also conducted a one-way ANOVA across the two conditions on the LIWC coding of positive emotions in the creation of their action plans. While those receiving feedback from personal and professional sources expressed more positive emotions ($M = 5.82$) than those who received feedback from only professional sources ($M = 4.69$), the difference was not found to be

significant. Thus, across the two different measures, some support is found for hypothesis 1a on the effect of receiving feedback from personal and professional sources on the generation of positive emotions.

Agentic resources. To test differences in agentic resource scores between time 1 and time 0 (within-subjects), as well as across conditions (between-subjects), we conducted a repeated measures ANOVA. There was a significant main effect of change in empowerment over time as well as a significant interaction effect between the change over time and the conditions, both $F(1, 96) = 7.03, p < .01$. This was a small effect (Partial $\eta^2 = .068$), yet it demonstrates that (1) overall empowerment scores were higher post-intervention at time 1 ($M = 5.6$) than they were pre-intervention at time 0 ($M = 5.99$), and (2) that the professional-only feedback group had no change in empowerment scores over time ($M = 5.70$ at time 0 and time 1), while the personal and professional feedback group reported significantly higher empowerment at time 1 ($M = 6.28$).

We also used the LIWC analysis of the action plans to assess the character strength of courage as a second measure of agency. A one-way ANOVA indicated no significant difference in courage between those who received feedback from professional sources ($M = .72$) and those who received feedback from personal and professional sources ($M = .31$). Thus, mixed support is found for hypothesis 1b regarding the effect of receiving feedback from personal and professional sources on the generation of agentic resources.

Relational resources. We used LIWC analysis of the portraits for the character strengths of love/attachment and kindness/generosity. A one-way ANOVA was conducted with planned linear contrasts to test the effect of feedback source on the expression of love and kindness in the portraits. In the case of expressing love, a significant main effect was obtained for the condition,

$F(1, 104) = 6.27, d = 0.55, p < .05$. Participants in the professional-only feedback group expressed less love in their portraits ($M = .41$) than those in the personal and professional feedback group ($M = .96$). We found a marginally significant effect on expressions of kindness/generosity in the portraits – those who received feedback from personal and professional sources had a marginal difference in expressed kindness ($M = 1.70$) than those who received feedback from only professional sources, $M = 1.14, t(104) = 1.87, p < .06$. Thus, some support is found for the effect of receiving feedback from personal and professional sources on the generation of relational resources.

In order to understand the influence of feedback source on differences in the action plans, we engaged in a post hoc, exploratory examination of the content of the plans. The action plans revealed the expression of more relational resources in the personal and professional feedback group than in the professional-only feedback group. We found that a higher proportion of the goals in the personal & professional condition were relationally-oriented (46%) versus the professional-only condition (32%). Examples of relationally-oriented goals include: “make at least one person that I interact with in a day feel good about themselves,” “make new friends and strengthen weak friendships,” and “become closer with my brother.” Additionally, while some of the goals in the professional-only conditions could be considered to involve relationships, they were often more task-focused than for those who received feedback from professional and personal sources. Examples of these more task-focused, yet somewhat relational goals included “set up programs in my school to help others become leaders,” “make my school realize that drinking and drugs are stupid and ruin lives,” and “develop my brother’s studying skills.” The goals of participants in the professional-only condition show a greater focus on the task, as opposed to solely focusing on the relationship.

Hypotheses 2a and 2b: Feedback valence condition

Hypothesis 2 posits that those receiving only strengths feedback will experience more positive emotions and agentic resources.

Positive Emotions. To examine the effects of feedback valence on positive emotions using the survey data, we conducted repeated-measures ANOVAs to compare the change in emotions from the baseline before the intervention to after the intervention (within-subjects), and across conditions (between-subjects). There were no significant main effects of time or condition, but there was a significant interaction between the change in positive emotions over time and condition, $F(1, 96) = 4.23, p < .05$. While this was a small difference (Partial $\eta^2 = .042$), the significant change in means of positive emotion scores over time and condition is an interesting one. There was an increase in positive emotions scores for those in the strengths and improvement-oriented feedback condition (time 0 $M = 5.72$; time 1 $M = 5.85$) but not in the strengths only condition (time 0 $M = 5.92$; time 1 $M = 5.69$), which is opposite to our hypothesis.

A one-way ANOVA was also conducted across the two conditions on the LIWC analysis of positive emotion words in the creation of their action plans. Here, as hypothesized, those receiving strengths-only feedback ($M = 6.15$) expressed significantly more positive emotions in their action planning than those who received strengths and improvement-oriented feedback, $M = 4.66$; $F(1, 88) = 4.60, d = 0.45, p < .05$. Thus, mixed support is found for hypothesis 2a regarding the effect of strengths only feedback on positive emotions.

Agentic resources. To test differences in agentic resource scores between time 1 and time 0 (within-subjects), as well as across conditions (between-subjects), we conducted a repeated-measures ANOVA. There was only a significant main effect of change in empowerment over time, $F(1, 96) = 15.384, p < .01$. Despite the small effect (Partial $\eta^2 = .138$), the differences in

empowerment scores between time 0 ($M = 5.57$) and time 1 ($M = 6.11$) indicate that this agentic resource does increase. We found no difference in empowerment scores between the strengths and development feedback group (time 0 $M = 5.48$; time 1 $M = 6.21$) and the strengths-only feedback group (time 0 $M = 5.66$; time 1 $M = 6.0$), $F(1, 96) = 2.04$, n.s..

We also used the LIWC analysis of the action plans to measure the character strength of courage. We conducted a one-way ANOVA using planned linear contrasts to test the effect of feedback valence on the expression of the character strengths of courage in action plans. The difference in the expression of courage in the action plans produced by those receiving strengths ($M = .38$) versus those receiving strengths and improvement-oriented feedback ($M = .53$) was not significant. Thus, our hypotheses concerning the positive effect of strengths-based feedback on psychological resources are not supported.

Looking Across Feedback Source and Valence

The prior analyses parsed out the effects of our intervention on the resources separately by the type of feedback source and valence. Taken together, the feedback-source and feedback-valence conditions represent between-subjects by within-subjects interactions of positive emotions and empowerment across four different conditions. To investigate these interactive condition effects for our first resource, a repeated measures ANOVA was conducted to test the between- and within-subjects main effects of the survey measures of positive emotions across conditions and over time, as well as the interaction effect. No main effects of change in positive emotion scores over time or across conditions were found, but the change in positive emotions over time by condition interaction effect was statistically significant ($F(3, 94) = 3.886$, $p < .05$). Despite the small difference across conditions (Partial $\eta^2 = .11$), as shown in Figure 3, it is interesting to note that the only increase in positive emotions scores was found in the strengths

and improvement-oriented/professional and personal sources feedback condition (time 0 $M = 5.68$; time 1 $M = 5.97$).

A one-way ANOVA with planned linear contrasts was conducted to test for significant differences in the display of positive emotions in action plans (our LIWC measure of positive emotions) across the four conditions. Although there was no main effect of condition, the planned contrasts confirmed that participants in the “RBS” condition (i.e., professional and personal source by strengths-only valence) expressed more positive emotions in their action plans than participants in the other three conditions, $t(86) = 2.338, p < .05$. These results, together with the separate tests for source and valence effects, suggest that receiving feedback from personal and professional sources seems to have the most beneficial effect on positive emotions.

Insert Figure 3 about here

In terms of agentic resources, when testing differences in empowerment scores across the four conditions, a repeated measures ANOVA revealed a main effect of time, $F(1, 94) = 7.157, p < .01$. A significant interaction effect was also obtained, revealing that empowerment scores from pre- to post-intervention were significantly different across conditions, $F(3, 94) = 3.266, p < .05$. These effects are both small (Partial $\eta^2 = .071$ and $.094$, respectively), but consistent with the separate source- and valence-effects. The change over time across conditions is also interesting. As seen in Figure 4, empowerment scores increased over time in all conditions except for those participants in the professional-only/strengths-only feedback group. These results suggest receiving strengths-only feedback from professional sources is associated with a

reduction in empowerment scores. A one-way ANOVA with planned contrasts, however, did not reveal any significant differences in expressions of courage in action plans (our LIWC measure of agentic resources) across the four conditions.

 Insert Figure 4 about here

And in terms of relational resources, one-way ANOVAs with planned linear contrasts were conducted to test differences in the expression of love/attachment and kindness/generosity in portraits across the four conditions. The expression of love/attachment was found to be significantly higher in the “RBS” condition in comparison with the three other conditions, ($F(3, 102) = 2.88, p < .05$). Notably, we found that those in the professional only source by strengths only condition had significantly lower scores than those of the other three conditions. While no significant main effect was found in the analysis of the expression of kindness/generosity, the planned contrasts suggest a marginally significant ($p > .06$), similar pattern: participants in the “RBS” group expressed more kindness in their portraits in comparison with the other three groups, $t(102) = 1.97, p = .051$. Again, those in the professional only source by strengths only condition had significantly lower scores than those of the other three conditions.

The trend observed across the interactions between feedback source and valence is revealing. The professional only/strength only feedback condition has the largest decrease in positive emotions from time 0 to time 1, the only decrease in empowerment from time 0 to time 1, and the lowest relational resources on the LIWC love measure. This suggests that it may be uncomfortable and uncustomary to exchange strengths-only feedback from our professional colleagues. In contrast, the strengths-only feedback has an efficacious effect on emotional and

relational resources when given in combination with a broadened set of feedback sources which includes friends and family. We found that this RBS condition had the most positive relationship with our LIWC measures of positive emotions, love and kindness.

Additional post hoc results. These findings lead to two additional questions. First, one might ask whether the findings are merely a function of differences in the total amount of feedback received across conditions. Are the significant findings regarding feedback source a function of people getting more feedback when they are receiving stories from both professional and personal sources? To see whether the amount of feedback mattered, we controlled for the total number of pieces of feedback received using an ANCOVA analysis. The original findings hold (in fact, the positive emotions resource becomes marginally significant for those receiving feedback from professional/personal sources). Thus, the increase in positive emotions and relational and agentic resources cannot just be explained by the fact that those receiving feedback from both personal/professional sources may have more feedback provided to them. Likewise, controlling for the amount of feedback provided does not alter the findings for the feedback valence condition.

The second post hoc question focuses on whether those who received feedback from personal and professional sources experienced more self-development. This kind of research question requires longitudinal data to demonstrate changes over time. In an exploratory effort to address the longer-term impact of the intervention, we examined correlations between our three resources and several self-development-relevant outcomes collected at the end of the participants' first semester of school following the leadership conference – approximately 9 months after the intervention ("time 2"). While the response rate did not differ across conditions, it was low (52 responses), thus limiting the statistical power of our findings.

In terms of positive emotions, when the participants had more positive emotions from time 0 to time 1, they reported a greater increase in participation in extracurricular activities at time 2 ($r = .37, p < .05$). And those who expressed more positive emotions in their action planning at time 1 reported more investment in the implementation of their action plan ($r = .26, p < .05$). Consistent with Fredrickson's broaden and build theory of positive emotions, those experiencing more positive emotions in the intervention took more action and invested more in their action plans.

In terms of agentic resources, when participants reported more empowerment from time 0 to time 1, they reported significant increases in their core self-evaluations, or appraisals of their fundamental worth and capability (Judge, Erez, Bono & Thoresen, 2003), between time 1 and time 2 ($r = .31, p < .05$). Also in terms of agentic resources, when participants expressed more courage in their action plans, they had more positive core self-evaluations at time 2 ($r = .32, p < .05$); more drive in achieving their goals (measured as "If I see a chance to get what I want, I go for it," $r = .38, p < .05$); and more persistence (measured as "When doing well, I love to keep at it," $r = .36, p < .05$). These findings suggest that agentic resources do fuel more positive self-perceptions as well as drive and persistence. No significant effects were found for relational resources.

These data do suggest an association between the resources created in the intervention and the goal pursuit necessary for self-actualization more than half a year later. Not only were more activities undertaken, but goals were focused on others and persistently pursued. Also of note is the indication by time 2 respondents that their feedback and portraits served as enduring resources to which they could turn. This is evidenced in quotes that demonstrate the "re-charging" of multiple resources by re-reading their feedback and portraits: for example, affective

and relational (“If I am down, I will look at those and realize how much I mean to people”); affective and agentic (“Whenever I’m having a rough day I read them to boost my confidence”; “If I am ever feeling down or sad... [my feedback] helps me get through”); and agentic and relational (“When I moved to a new state and started a new school, I also started fresh and used my feedback to inspire me to show my best self to others”). The RBSE fosters affective and agentic resources that may prove impactful over time.

Discussion

Through this preliminary research, we have gained a more nuanced understanding of the efficacy of the characteristics of the RBSE. Four conditions, in terms of feedback valence (strengths-only vs. strengths and improvement) and feedback source (professional only vs. professional and personal), were administered to adolescent participants within the context of a leadership conference. Providing some support for H1a-1c, participants in conditions with a broader set of feedback sources (i.e., the personal and professional feedback source condition) reported more positive emotional, agentic, and relational resources relative to conditions with feedback only from professional sources.

However, little support was found for H2a-2b about feedback valence. Whereas participants in conditions where only strengths-based feedback was received were expected to report more positive emotions, they actually reported less positive emotions relative to those who received strengths and improvement feedback. Results for this condition were mixed, however, since strengths-based feedback recipients also expressed more positive emotions words in their action plans. No significant difference in agentic resources was observed across feedback valence.

In addition, looking across all four groups, we find some interesting patterns. First, participants in the RBS condition (professional and personal/ strength-only) express the highest positive emotions in their action planning and the most love and kindness in their best self portraits. This provides support for the potency of affirmative, developmental experience of the RBSE. Second, the professional only/ strength only group has the most dramatic drop in positive emotions from time 0 to time 1, the only decrease in empowerment from time 0 to time 1, and the lowest expression of the love character strength in their best self portraits. It may be that it is uncomfortable and uncustomary to receive strengths only feedback from professional sources and thus the feedback was experienced as less generative for our participants.

Overall, the results suggest that perhaps the power of the RBSE stems from the broader array of feedback providers who can provide a more holistic understanding of one's best self. These results suggest feedback may indeed be most authentic, credible, and trusted by the feedback receiver when it comes from a family member or friend. The feedback is more likely to capture the person's best self across different stages of life given the longer amount of time that friends and family member may have known the person as well as the deeper and more intimate relationship they are likely to share. These patterns in this narrative feedback may aid in self-development because a person can see commonalities seen across different realms of life (Sparrowe, 2005). The results also indicate that those receiving feedback from just professional sources actually experienced a reduction in positive emotions. These results are consistent with the finding that people can be quite defensive and question the motives of professional feedback (Atwater & Brett, 2005).

The findings on strengths-based feedback were more mixed – similar to the limited effects of the “you at your best” intervention, in which participants had to write about and reflect

on the strengths displayed at a time when they were at their best (Seligman, Steen, Park, & Peterson, 2005). That intervention did not significantly increase happiness relative to other interventions, or even a placebo. In our case, it may be that individuals try to read between the lines when they only receive strength-based feedback – looking to see what may not be said or how a strength can be perceived as a weakness (e.g., when someone is told that a strength is that they are very good at “self-enhancement,” it may be perceived as an area in need of development). It is possible that strengths-based feedback was discounted due to the type of relational context in which it was sought and provided (Roberts, Dutton et al., 2005). Positive emotions did not increase for participants receiving strengths only feedback from only professional sources. This type of strengths feedback may be outside the norm of expectations from professional colleagues.

The lack of support for the hypotheses on the influence of strengths-only feedback on agency may also reflect that people may have a harder time knowing how to react to feedback on their strengths. If one is already good at something, then what action is necessary? This ambivalence may be reflected in action planning that is less specific and actionable. Examples of these less-specific action plans include: “spreading kindness and generous words is what makes me strong...this will help me grow” and “[cross country running] is something that I love to do and am pretty good at it.” In these examples, it is not clear what the participants would actually do to fulfill their action plans. People may pay more attention to negative feedback because it directs their attention to specific improvement actions (Baumeister et al., 2001). For example, goals from participants in the improvement-oriented condition are more specific and actionable: “to not judge people by the first impression,” “to stop making other people’s problems my own,” and “to be more assertive.”

It may also be that the mixed findings on feedback valence may be due to the salience of the feedback content. Participants were able to choose who would provide feedback as long as they reflected their specified feedback source condition. Therefore, we expected that participants selected feedback providers with whom they shared valued relationships. Ultimately, then, the mixed findings may be due to participants not finding the content of the feedback to be salient to their self-definitions. We recommend that future research further explore how people make sense of and respond to feedback of different valences concerning different life domains. It may be that some strengths feedback will relate to the participants' own perceptions of self-definition and some will not. Moreover, some of the "areas for improvement" information may be considered unimportant to the participant as it may not focus on a salient area of self-definition, whereas other feedback will tap into more important facets of self.¹

Limitations of the Research

Given the preliminary nature of this study, we outline key limitations and suggest some directions for future research. First, the findings on these adolescent leaders may not be generalizable to other populations. Despite their selection as the "brightest and best" at their schools, they are young and have limited experience across life domains. In particular, high school students may find the idea of "professional relationships" to be rather nebulous. For example, because co-workers and teammates may also be friends, and coaches and youth group leaders may also be friends' parents, it may be harder for them to distinguish their personal sources from their professional sources. This makes the experimental conditions more similar than different. Thus, it will be important to follow up with research on the RBSE in adult populations.

¹ We thank an anonymous reviewer for this helpful suggestion about how the content of the feedback may or may not fit with a person's self-definition.

A second limitation is the strong base effect of MYLead across all four conditions. The conference, in general, promoted the formation of what Dutton (2003) calls “high quality connections” – that is, the fostering of respectful engagement, trust building, and task enabling among participants. While this strong context was a boon to MYLead participants, it may have created an overall ceiling effect in terms of positive emotions, relational and agentic resources, making it difficult to detect between-group differences across the four conditions.

A third limitation is that we were unable to implement a true experiment, but a quasi-experiment. We were not able to include a no-feedback control group or a group that received only improvement-oriented feedback due to the developmental nature of MYLead. However, all of our comparisons are between conditions as well as between baseline and post-intervention measures. We also had to reassign some participants to different conditions based on the feedback actually received. While the actual feedback received may have not been as ideally controlled, our reassignment reduced possible confounds posed by this issue.

Implications for Practice

The RBSE has been used with thousands of students around the world, including executive education, MBA, undergraduate, and now high school students. The following quotes exemplify the impact it had on the adolescent leaders’ development: “Some of the things they said I didn’t realize that I do. As a result, I have become a stronger leader and more positive,” “I never knew what an influence or difference I made with my peers,” and “It was interesting and gave me some of what I wasn’t expecting. The things that you don’t expect are often the most impactful to my strengths and weaknesses.” Feedback from others is crucial for self-actualization and the RBSE can be a powerful tool in this process.

There has also been considerable interest in using the RBSE as a tool in leadership development (Roberts, Dutton, Spreitzer, & Suesse, 2006). This research begins to empirically examine the claim made by Buckingham and Clifton (2001) that real excellence is a function of uniqueness. They suggest that people excel as they come to understand their unique patterns of strengths and talents and learn how to match these strengths and talents to the situations in which they work and live. Such a strengths-based approach questions a universal assumption of organizational life: a person's area of weakness is that person's greatest area of opportunity. Most personal development exercises are based on this "deficit model" of personal development (Seligman & Csikszentmihalyi, 2000). Our study builds on Buckingham and Clifton's (2001) assumption. But instead of tying strengths to performance or satisfaction as prior work by Gallup has done (e.g., Hodges & Clifton, 2004), we seek to identify the mechanisms that underlie the benefits of strengths-based feedback in our focus on the generation of three key resources.

As the RBSE draws on reflective feedback from others, our study goes beyond current self-assessment strength-based approaches to personal development (such as Gallup StrengthsFinder), by providing multiple viewpoints on an individual's strengths, and building relational resources through this sharing. As illustrated in these quotes, feedback from others provides something that no self-assessment can provide: "She was the teacher I most respected, and I valued her opinion very highly" and "I look up to these people and I want to make them proud, so seeing what they have to say about me means a lot and makes me more confident." Social psychology has aptly demonstrated that our self-perceptions are limited in scope (Langer, 1978) and that our self-assessments are too often ego-enhancing (e.g. Dunning, 2005; Kruger &

Dunning, 1999). As such, the RBSE was developed on the idea that self-knowledge can be shaped by others' perceptions of the self (Cooley, 1902).

The findings suggest it is a combination of strengths and weaknesses that matter for generating resources for self-development. Like Buckingham and Clifton (2001), we recognize that in many situations people are required to operate in their areas of weakness. Buckingham and Clifton (2001) advocate managing around weaknesses: this may mean finding someone else to do the tasks one does poorly or putting in enough effort to develop one's area of weakness to an acceptable level of performance. But to do this, people need a sense of both their strengths and the areas where they need improvement. A key assumption with the RBSE is that most people already know quite a bit about areas where they need further development. In this way, the RBSE can provide new insights on areas of strength that people can leverage to make more positive contributions in their work.

While the finding that feedback from personal and professional sources had more impact than feedback from just professional sources may not be surprising intuitively, it is interesting from a leadership development perspective (e.g. Avolio & Gardner, 2005). Almost all feedback provided in conventional leadership development focuses exclusively on feedback from professional colleagues. It is very rare to receive this kind of feedback from those who may know us best – friends and family. So a contribution of this study is the confirmation that our leadership development approaches may be unknowingly constraining because it is the combination of personal and professional sources that is generative of the most resources.

Conclusions

The RBSE is a tool aimed at helping people understand more about their core strengths to aid in their self-development. Our findings suggest that the exercise's unique approach of

capturing feedback from sources across life domains is generative in enabling positive emotional, relational, and agentic resources. In this way, the study of the RBSE contributes to the growing body of research in positive psychology (Peterson & Seligman, 2004), positive organizational scholarship (Cameron, Dutton & Quinn, 2003), and positive organizational behavior (Luthans, 2002) advocating more affirmative, holistic approaches to self-development.

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Table 1

Condition reassignments based on actual feedback received

	Original	Reassigned
1. Strengths-Only/Personal and Professional	24	38
2. Strengths-Only/Professional-Only	27	16
3. Strengths and Improvements/Personal and Professional	34	37
4. Strengths and Improvements/Professional-only	26	17
Total	111	108

Table 2

Means (SD) for pre-intervention, and post-intervention resource measures by condition

	Intervention Condition							
	Feedback Source		Feedback Valence		Feedback Source x Valence			
	Professional-Only	Personal and Professional	Strengths and Improvement-oriented	Strengths-Only	“RBS”: Strengths-Only/Personal and Professional	Strengths-Only/Professional-Only	Strengths and Improvements/Personal and Professional	Strengths and Improvements/Professional-only
	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)	M (SD)
Positive emotions (pre-intervention)	5.81 (.69)	5.82 (.78)	5.72 (.87)	5.92 (.61)	5.96 (.64)	5.82 (.53)	5.68 (.90)	5.80 (.83)
Positive emotions (post-intervention)	5.41 (1.11)	5.92 (.85)	5.85 (.76)	5.69 (1.12)	5.88 (.91)	5.23 (.143)	5.97 (.79)	5.59 (.65)
Positive emotions words in Action Plans	4.69 (3.02)	5.82 (3.50)	4.66 (2.86)	6.15 (3.67)	6.55 (3.97)	5.40 (2.99)	5.04 (2.77)	3.99 (2.99)
Empowerment (pre-intervention)	5.70 (1.32)	5.51 (1.14)	5.48 (1.26)	5.66 (1.14)	5.63 (1.06)	5.73 (1.34)	5.39 (1.22)	5.67 (1.35)
Empowerment (post-intervention)	5.70 (1.32)	6.28 (.912)	6.21 (.99)	6.0 (1.16)	6.26 (.89)	5.4 (1.50)	6.3 (.95)	6.0 (1.07)
Character strengths in	.72 (1.52)	.31 (.68)	.53 (1.06)	.38 (1.09)	.29 (.65)	.56 (1.63)	.34 (.72)	.88 (1.44)

Action Plan:
Courage

Character
strengths in
Portraits:
Love/attachment

.41 (.89) .96 (1.09) .82 (1.11) .76 (1.02) 1.01 (1.09) .13 (.34) .90 (1.10) .66 (1.14)

Character
strengths in
Portraits:
Kindness

1.14 (1.32) 1.70 (1.46) 1.45 (1.25) 1.61 (1.61) 1.85 (1.65) 1.01 (1.38) 1.53 (1.23) 1.27 (1.30)

Figure Captions

Figure 1. Theoretical framework for the present study

Figure 2. Action plan form

Figure 3. Interaction effect plots for changes in positive emotion

Figure 4. Interaction effect plot for changes in empowerment

Figure 1

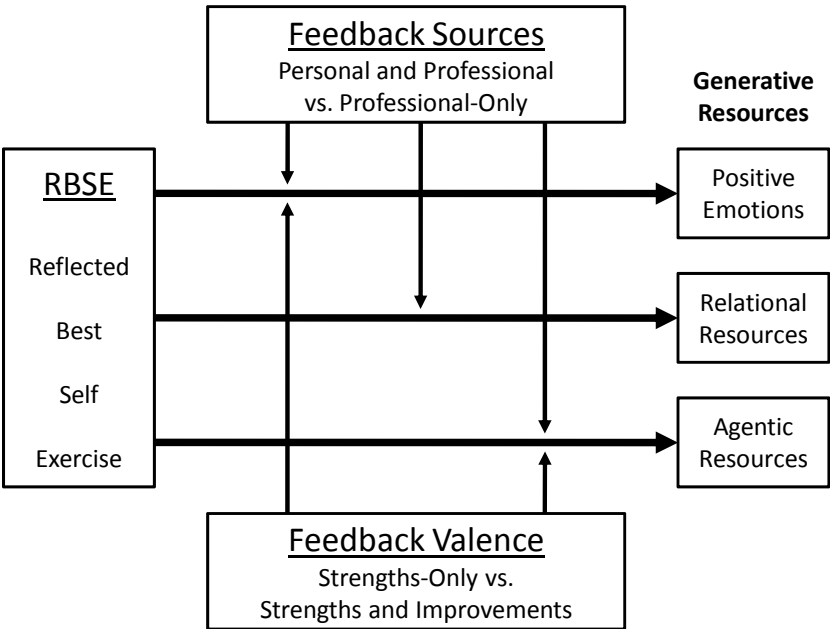


Figure 2

Personal Development Challenge

Name: _____

Date: _____

My Personal Development Challenge: _____

Reasons to Change:

Supporting Factors

Definition of Success:

Current State

ACTIONS

Desired State

Cost of Status Quo:

Obstacles/ Barriers

Benefits:

Figure 3. Change in Positive Emotions by Condition

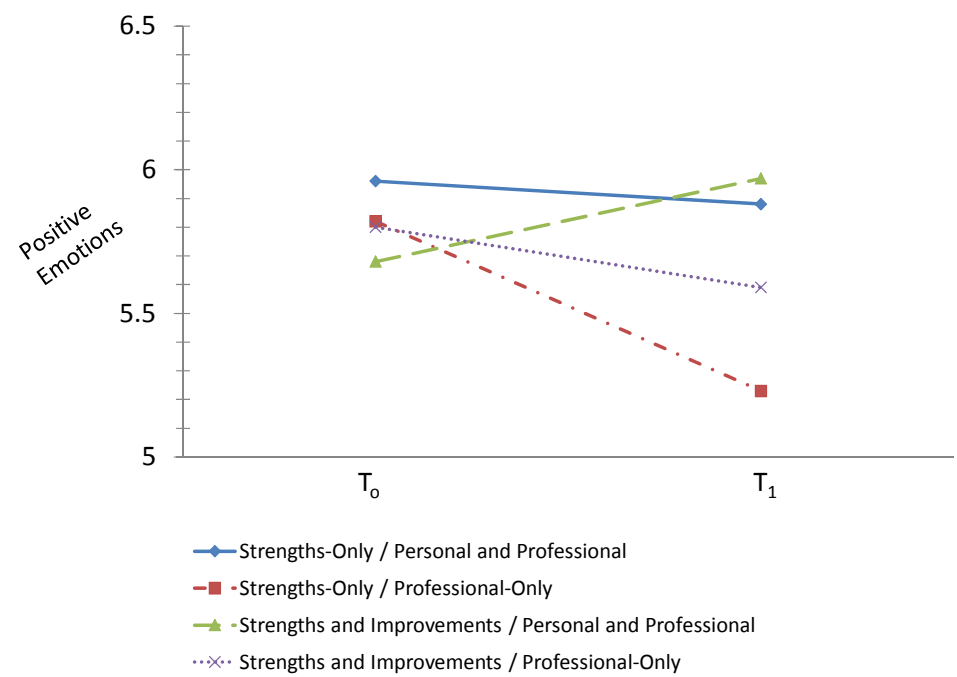


Figure 4. Change in Empowerment by Condition

